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Sponsoring Agency: Department of Information Technology

Chief Information Officer signature: _____

DocuSigned by:

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Date signed and effective: ___10/17/2018___

King County

I. Purpose:

This policy establishes the responsibility and authority for ownership, acquisition, management and administration of the King County Enterprise Network.

II. Applicability and Audience

This policy applies to all King County Organizations and Workforce Members who will be responsible for supporting information technology within their respective Organizations.

[*Note:* IT Governance Policies apply to the Executive Branch. Applicable to independently elected agencies as baseline policy requirements.]

III. Definitions

a. **Access Control List (ACL):** A list that specifies which users or systems are granted access and what permission level they have.
b. **Administration:** The performance or Management of business operations.
c. **Backbone:** A computer network that ties together diverse networks or locations together
d. **Core Layer:** The King County Enterprise Network core layer is the "backbone" of the network. This layer is responsible for high speed transfer of data and serves as a connection point for the distribution layer. The defining characteristic is redundancy and scalability.
e. **Distribution Layer:** The King County Enterprise Network distribution layer focuses on aggregating access connection/devices and apply policies, securities in the form of access-lists, quality of service, and CPU intensive routing decisions.
f. **Engineering:** The design, analysis, and/or construction of works for practical purposes. The crucial and unique task of the engineer is to identify, understand, and interpret the constraints on a design in order to produce a successful result.
g. **Firewall:** A part of a computer system or network that is designed to block unauthorized access while permitting outward communication. A firewall is designated as a buffer between any connected public Network and a private Network.
h. **Gateway:** A device that provides interoperability between Skype for Business and analog phones, paging systems, gates, and any other kind of telephony device.
i. **Incident:** The attempted or successful unauthorized access, use, disclosure, modification, or destruction of information or interference with system operations in an information system.
j. **Internet Service Provider (ISP):** An Internet service provider (ISP) is an organization that provides services for accessing the Internet.
k. **Intrusion Detection and Prevention System (IDPS):** A device or software application that monitors a network or systems for malicious activity or policy violations and responds based on set criteria to block or allow traffic.

l. **King County Enterprise Network:** The Network used to conduct county business that provides transport of data within and between county facilities and other agencies of county government. This definition also refers to the Network used to transport data between the county, other government agencies and the Internet. It does not refer to Networks built for the sole purpose of meeting special operations needs of county business units, including process control and supervisory control networks (SCADA), Nor does it refer to the King County Institutional Network (I-Net), which is required to meet contractual obligations with I-Net customers and the local cable television utility

m. **Least Privilege:** Granting a user only those access rights needed to perform official job duties.

n. **Local Area Network (LAN):** A computer network that interconnects computers within a limited area such as a residence, school, laboratory, university campus or office building and has its network equipment and interconnects locally managed.

o. **Management:** The act of directing people towards accomplishing a goal.

p. **Network:** A computer network is a group of computer systems and other computing hardware devices that are linked together through communication channels to facilitate communication and resource-sharing among a wide range of users. The connections between nodes are established using either cable media or wireless media. The best-known computer network is the Internet

q. **Network Administrator:** Network Administrator designates a job position of engineers who carry out network administration. Network Administrators are the engineers who maintain the hardware and software that comprises the network. This normally includes the deployment, configuration, maintenance and monitoring of active network gear: switches, routers, firewalls, etc.

r. **Network Infrastructure Equipment:** Equipment that enables network connections for a facility, group or individual to other points on the County Enterprise Network. This definition includes LAN switches, routers and WAPs serving each facility and those used to distribute data destined to other parts of the network. It also includes appliances used to control network traffic and secure the network from unauthorized access. The appliances include, but are not limited to network traffic shapers, network firewalls, VPN concentrators, and network intrusion/prevention sensors.

s. **Network Load Balancer:** A device that distributes traffic across multiple links to maximize throughput, minimize response time, and avoid overload of any single resource.

t. **Organization:** Every county office, every officer, every institution' whether educational, correctional or other; and every department, division, board, and commission.

u. **Quality of Service (QoS):** Quality of service is the overall performance of a telephony or computer network, particularly the performance seen by the users of the network.

v. **Redundancy:** Redundancy is the duplication of critical components or functions of a system with the intention of increasing reliability of the system, usually in the form of a backup or fail-safe.

w. **Router:** A network device that forwards data packets between computer networks.

x. **Service Level Agreement (SLA):** A formal agreement between the provider and the user specifying the level of service, roles, responsibilities, procedures, and expectations.

y. **Switch:** A network device that connects devices together on a computer network. The switch processes and forwards data to the destination device.

z. **System:** software, hardware, and interface components that work together to perform a set of business functions.

aa. **Telephony Services:** Telecommunication services for the purpose of electronic transmission of voice, fax, or data, between distant parties. Such as: Ring Downs, Panic Buttons, ACDs, elevator phones, Alarm lines, credit card machines, Fax, postage, automated Attendant/phone tree, voicemail, overhead paging.

bb. **Wireless Access Point:** A network device that allow Wi-Fi devices, including but not limited to cell phones, laptops, and PDA's, to connect to a wired network

cc. **Workforce Member:** Employees, volunteers, and other persons whose conduct, in the performance of work for King County, is under the direct control of King County, whether or not they are paid by King County. This includes full and part time elected or appointed officials, employees, affiliates, associates, students, volunteers, and staff from third party entities who provide services to King County.

IV. Policy

A. General

1. All Network Infrastructure Equipment, including but not limited to, firewalls, intrusion detection and prevention systems (IDPS), remote access devices, network load balancers, routers, switches, gateways, and wireless access points, connected to the King County Enterprise Network shall be owned, configured, and maintained by KCIT Production Operations.

2. The installation of unauthorized Network Infrastructure Equipment that includes, but is not limited to, Hubs, Wireless Access Points, and Desktop and/or unmanaged switches, or any other device that allows access to the King County Enterprise Network is strictly prohibited.

3. KCIT Production Operations maintains a list of standard, supported Network Infrastructure Equipment that is allowed to connect to the King County Enterprise Network. The Hardware standard list is reviewed and updated at least yearly.

4. KCIT Production Operations shall manage Internet Service Providers and connections for King County.

5. KCIT Production Operations shall manage Telephony Services.

6. KCIT Production Operations shall manage hardware and software maintenance contracts for all approved Network Infrastructure Equipment.

7. Plans for implementing new local area networks (LANs) and/or the expansion of existing LANs shall be reviewed and approved by KCIT Production Operations prior to implementation.

   a. For isolated, self-contained LANs, new deployments and expansion of existing LANs shall be reviewed by KCIT.

   b. In the event that the isolated, self-contained LANs require integration into the King County Enterprise Network, any inconsistencies shall be corrected by the Organization in question in order to bring it into compliance with the network policies and standards, prior to the integration with the King County Enterprise Network.

   c. In the event an isolated, self-contained LANs are transitioned to KCIT Production Operations to manage, any inconsistencies shall be corrected prior to transition,

by the Organization in question in order to bring it into compliance with the network policies and standards.

8. Only authorized Network protocols will be used to transport traffic on the King County Enterprise Network.

9. Network addressing shall be centrally administered by KCIT Production Operations. Only addressing assigned by KCIT shall be used in configuring equipment for operation on the King County Enterprise Network.

   a. Logical addressing used for devices shall not route on the King County Enterprise Network.

   b. Internal addressing for these devices, such as Meta-sans, be coordinated with KCIT Production Operations.

   c. In the event an Organization's device needs to route onto the King County Enterprise Network, all inconsistencies shall be changed by the Organization to comply with the Network Naming and Numbering Standard, prior to that device becoming part of the King County Enterprise Network.

10. Specification of communications cabling and its distribution within county facilities shall be the responsibility of King County Information Technology (KCIT) Department. Requests for communications cabling shall be directed to KCIT Production Operations for review of needs, development and approval of plans, and coordination of installation in accordance with the Physical Infrastructure Standard.

    a. KCIT reserves the right to remove any unauthorized cables, connections, and hardware.

B. Security

   1. Administrative access to Network infrastructure devices is controlled by the network access control mechanism using LDAP credentials for user authentication. Access levels are applied using the concept of Least Privilege.

   2. KCIT Production Operations will take the necessary steps to maintain security, service, and performance of the Network.   This includes taking action against devices and/or connections that exhibit behaviors that are seen as detrimental to the King County Enterprise Network, including but not limited to:

      a. Imposing an exceptional load on the King County Enterprise Network or a County service.

      b. Exhibiting a pattern of network traffic that disrupts King County Services.

      c. Exhibiting a pattern of malicious network traffic associated with unauthorized scanning or attach behaviors.

C. Administration

   1. KCIT Production Operations shall perform the configuration, support, and maintenance of all the Network Infrastructure Equipment.

      a. Network Infrastructure Equipment shall be configured in accordance with approved templates

      b. Network Infrastructure Equipment shall comply with this standard equipment list.

      c. Network Infrastructure Equipment purchases shall be the responsibility of KCIT Production Operations.

      d. Network Infrastructure Equipment shall have a support contract and/or spares available based on criticality.

      e. Network Infrastructure Equipment naming convention shall be in accordance with the network device naming standard.

2. KCIT Production Operations shall ensure the health of the King County Enterprise Network is monitored 24 hours a day, 7 days a week, 365 days a year.

3. KCIT Production Operations shall adhere to the King County Change Management Process and utilize the establish Network maintenance windows for service impacting changes.

4. KCIT Production Operations shall meet network connectivity and availability requirements and respond to service outages and performance issues per established Service Level Agreements (SLA's).

5. KCIT Production Operations shall provide redundancy for the King County Enterprise Network Core and Distribution layers, and connections to the Internet.

6. KCIT Production Operations shall supply sufficient bandwidth for acceptable performance of King County approved applications.

7. KCIT Production Operations shall provide disaster recovery planning and support, basic growth and capacity planning for the King County Enterprise Network.

V. Implementation Plan

A. This policy becomes effective for Executive Branch agencies on the date that it is signed by the County Chief Information Officer. KCIT Production Operations is responsible for implementation of this policy.

B. King County Departments and Agencies are responsible for communicating this policy to the management structure within their respective agencies and other appropriate parties

VI. Maintenance

A. This policy will be maintained by KCIT Production Operations

B. This policy will automatically expire five (5) years after its effective date. A new, revised, or renewed policy will be initiated by Communications prior to the expiration date.

VII. Consequences for Noncompliance

A. Failure to comply will result in the immediate removal from the network.

VIII. Appendices: [*Note*: List Appendices using formal titles.]